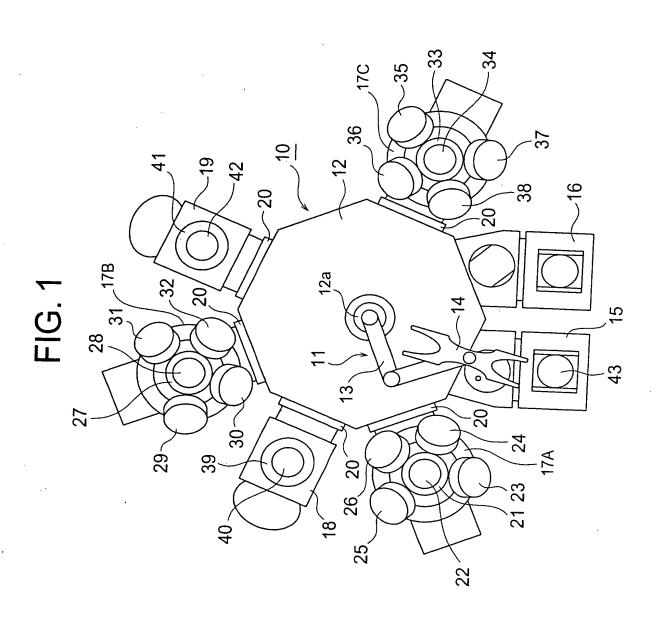
TITLE: SYSTEM AND METHOD OF DEPOSITION...

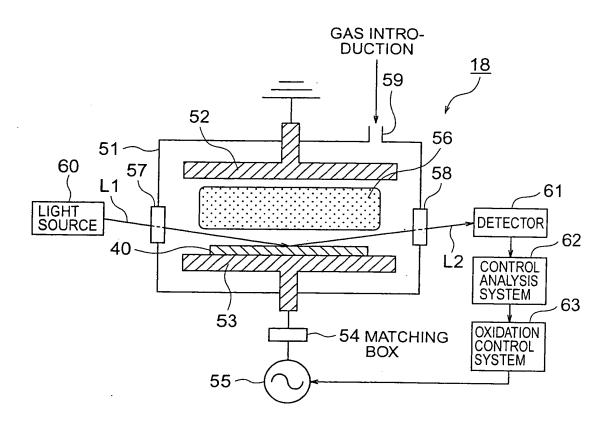
Inventor(s): Takaaki TSUNODA et al. Application Serial No: 033897-004 SHEET 1 of 4



TITLE: SYSTEM AND METHOD OF DEPOSITION... INVENTOR(S): TAKAAKI TSUNODA ET AL.

**APPLICATION SERIAL NO: 033897-004** SHEET 2 of 4

FIG. 2



TITLE: SYSTEM AND METHOD OF DEPOSITION...

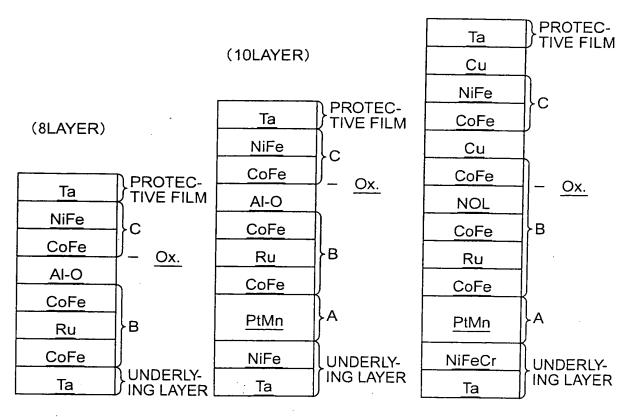
INVENTOR(S): TAKAAKI TSUNODA ET AL.

APPLICATION SERIAL NO: 033897-004 SHEET 3 of 4

FIG. 3A FIG. 3B

FIG. 3C

(13 LAYER)



MRAM

TMR HEAD / MRAM

ADVANCED GMR HEAD

A: ANTIFERROMAGNETIC LAYER

B: PIN LAYER C: FREE LAYER

AI-O: AI OXIDE FILM(INSULATING FILM)

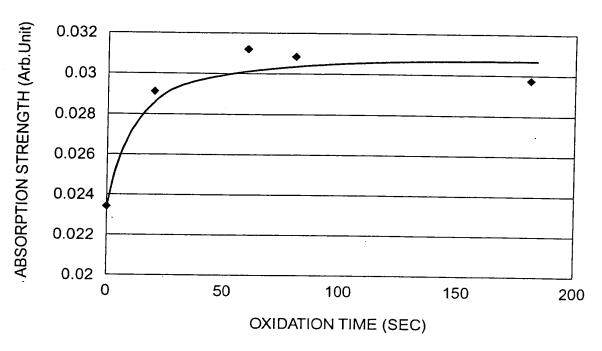
Cu: NONMAGNETIC FILM Ox.: OXIDATION TREATMENT

TITLE: SYSTEM AND METHOD OF DEPOSITION...

INVENTOR(S): TAKAAKI TSUNODA ET AL.

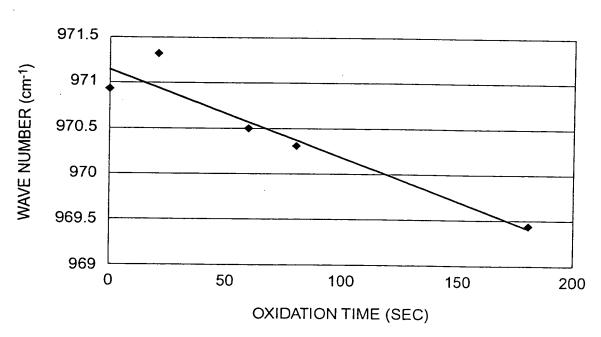
APPLICATION SERIAL NO: 033897-004 SHEET 4 of 4

FIG. 4



RELATIONSHIP BETWEEN ABSORPTION INTENSITY NEAR 970cm<sup>-1</sup> AND AI OXIDATION TIME

FIG. 5



RELATIONSHIP BETWEEN POSITION OF AI-O BAND AND AI OXIDATION TIME